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PROFESSOR WALLEY.

The death of Professor Walley was no surprise to many members of his profession. For some months past he has been seriously ill, and at the commencement of the present session his medical advisers ordered him to a milder climate. Jersey was selected as a suitable place, and thither he went accompanied by Mrs. Walley. At frequent intervals reports reached his friends but none were very hopeful. For a time his own letters were written with all his old *verve* and the handwriting gave no indication of physical depression. The cause of death was acute tuberculosis, and the case was a remarkable one as being due to a local inoculation which took place a considerable time back. Professor Walley was a martyr to science and his premature end is directly traceable to his labours in pathological research.

Thomas Walley was a native of Cheshire, and saw his first veterinary practice in the neighbouring county with Mr. Bamfield Kettle. In this dairying district he imbibed that interest in cattle and their diseases which he maintained throughout his life. After studying at the Royal Veterinary College he obtained his diploma in 1863. For a time he assisted in the practice of Mr. Stanley at Birmingham, and was afterwards a practitioner at West Derby. During those years he kept well in touch with the science of his profession, and was a frequent contributor of well recorded clinical cases to the only professional periodical we then possessed.

In 1871 when Professor Williams was Principal of the Dick Veterinary College two chairs became vacant in that Institution — the chairs of Anatomy and Cattle Pathology. What happened we were told by Professor Walley in his opening address at the commencement of the 70th Session of the Dick College. "Being urged by the Messrs. Lawson and the late Mr. D. McLean of the A.V.D. to become a candidate, I sent up my name to the trustees, and in due course I attended at the College for the purpose of undergoing, with others, a competitive examination—a course, I may say, so far as I know, that has never before or since been followed in connection with the Scotch Veterinary Colleges, and only at the earliest period of its history in the London College. The result of that examination was that I was recommended by the Board as a fit and proper person to fill the Anatomy chair." This arrangement did not last long, and the new professor was appointed lecturer on Cattle Pathology. In 1873 Professor Williams resigned the principalship of the College, and Mr. Fearnley was appointed in his place by the trustees. In June 1874 Mr. Fearnley resigned, and in August of that year Mr. Walley was made Principal and lecturer on Veterinary Medicine and Surgery, Cattle Pathology, Hygiene, Materia Medica, and a few other subjects. From 1871 to 1875 seems to have been a most unsettled time at the Dick School. Changes of the staff were incessant, and the friction engendered must have done harm. Nevertheless the school progressed, and it is remarkable how large a proportion of the teachers who occupied its chairs have built up for themselves the highest reputations. In reference to these years Professor Walley has said "The first year I joined the institution the number of students was about 70. At the commencement of the session 1873-4 over forty of the old students migrated *en bloc*, leaving only nine in the College. When I was appointed Principal there were altogether 45 students. From that year onward the numbers annually joining have steadily increased, until now the number on the books exceeds by more than 200 the total of the class in 1874-5."

In 1876 the students presented Professor Walley with a gold watch as a token of their gratitude for his "unremitting and untiring energy." It has often been said that students are close and exact observers of their teachers, and certainly no words could better describe the late principal. Unremitting and untiring energy were the special characteristics of the man. He never ceased to work for his profession and for his school. No students ever had a more zealous, conscientious and painstaking preceptor than Professor Walley. The Dick College has sustained a severe loss, and although we hope it may secure another really good Principal we expect that the students will for some time to come miss the indefatigable preceptor to whom no detail was to trifling and no labour too irksome provided such help would be of use to the young men he was preparing for examination.

But Professor Walley's onerous duties did not cease with his students or his school. No man took more interest than he in his profession. It is not easy to mention a subject on which he has not left some note or observation. At the meeting at the National Veterinary Association he was always to the front, and the reports of its proceedings contain papers and speeches by him on many diverse topics. Local Societies very frequently drew upon his good nature and wide general experience, and some of his most useful work is to be found in the papers he contributed to their meetings. He wrote constantly to the veterinary periodicals, and published at least two books. His work on "Four Bovine Scourges" will remain a valuable book of reference on pleuro-pneumonia, foot-and-mouth disease, cattle-plague, and tuberculosis. His book on "Meat Inspection" is the standard text-book on the subject, accepted not only by veterinarians, but by medical officers and sanitary officials.

In all that pertained to the progress of the profession as a Corporate Body the professor was equally interested. He was elected a Vice-president in 1876, a Member of Council in 1880 and was called to the Presidential chair. 1884-5. He was a Member of Council at the time of his death. During the whole of the eighteen years in which he was a member of the governing body of the profession he took a leading part in all the reforms effected. A reference to the reports of Meetings of Council will show that in most cases he was foremost in pushing on reforms which others hesitated to support, and that in very many instances he was the first to suggest the change which was afterwards approved by all. For many years he held the office of Veterinary Inspector for Edinburgh, and his duties at the public abattoirs of that city afforded the opportunity for completing his practical knowledge of the qestion of meat supply. He was also an Inspector under the Board of Agriculture and afforded valuable assistance in stamping-out the plagues which have been attacked by that body. In 1892 he said "It may be hoped that, encouraged by the success which has attended the measures for suppressing pleuro-pneumonia and foot-and-mouth disease, the Board will, ere long, apply the same in the prevention and suppresion of tuberculosis and swine-fever." It will be well for stock-owners if the Board remember and act upon his advice.

Taken all round Professor Walley has had few equals in the veterinary profession. As practitioner, as teacher, as member of Council, he has done his duty, and he will always be remembered as one who never spared himself to further the interests of our profession and the progress of our science. He was always a courteous opponent, a kindly friend, and an honest, earnest man.

CASES AND ARTICLES.

MALIGNANT CATARRH.

By Charles Morgan, M.R.C.V.S., Nonington, Kent.

I am induced to sent you an account of a similar case to that recently reported by Mr. Scott, because I think them rare, and the symptoms differ over the body.

Subject, a large white shorthorn cow, due to calve in January with her fifth calf, almost dry, showed the same symptoms as recorded of abdominal pain, uneasiness, etc., but unlike it the bowels were much constipated, muzzle and under jaws swollen, stiffness of gait. I diagnosed it as indigestion which a dose of physic would relieve, although I confess the symptoms appeared a little unusual; the physic acted, and the abdominal pain ceased with it.

Two days after she showed the peculiar deep-coloured injected membranes of eyes, with much discharge, skin on nose and teats, the latter, as Mr. Scott aptly says, looking as if painted bright chocolate, extending up to the udder; one only on the outside. From this point the symptoms differ, the skin on teats at once assumed a dry parchment-like feel, peeling off gradually later on, leaving a clean surface; the udder remained unaffected. On the body, in the course of a week, large spaces could be felt, having the same parchment-like character, in places feeling elevated and springy, also on both sides of the neck and brisket. Now, four weeks after, the skin in a dry state is gradually leaving, the neck is clean, cow in good health. The peculiar deep colour looked remarkable as well as alarming on this pure white animal. I well remember being considerably nonplussed by a case in a fattening bullock some years ago. The great amount of irritating discharge from eyes and nose has doubtless inclined surgeons to consider it a form of catarrh, but I think it arises entirely from the digestive organs.

VETERINARY SOCIETIES.

ROYAL COUNTIES VETERINARY MEDICAL ASSOCIATION.

A meeting was held on Friday, December 7th, at 10, Red Lion Square. Owing to various causes the attendance was exceptionally small. Mr. James P. S. Walker, the President and treasurer, occupied the chair, and there were also present Messrs. Wm. Hunting (President of the Royal College of Veterinary Surgeons), Albert Wheatley, Geo. A. Lepper, J. Sutcliffe Hurndall, hon. sec., F. W. Wragg, A. L. Butters, H. G. Rogers, J. F. Simpson, and W. Wilson; and Messrs. F. C. Verney and C. E. Parker, of the R.V.C., Camden Town, visitors.

Financial.

The minutes having been read, confirmed and signed,

The President said it was his pleasing duty to lay before them the statement of his stewardship during the past year as their treasurer. A balance was brought forward in January of £68 4s. 4d., and he had received during the year members' subscriptions amounting to £22 11s. 6d., making a total of £90 15s. 10d. He had paid accounts during the year amounting to £12 16s. 4d., leaving a balance in hand of £77 19s. 6d. The number of members was at the present time 52, several having been removed from the roll last year on account of their subscriptions being in arrears. Mr. Walker went on to ask the members to relieve him of the responsibility of the treasurership, which he had held for eleven years. During the whole of that time he had had only one difference with a member, the facts of which he stated.

On the proposition of Mr. Lepper, seconded by Mr. Rogers, it was unanimously resolved that the conduct of the member named be taken into consideration at the next meeting, and that the secretary inform him of the same and ask him to give an explanation at that meeting.

Mr. Simpson proposed, Mr. Lepper seconded, and it was agreed unanimously, that the treasurer's report be received and adopted.

Election of Officers.

The Secretary said he had received a letter from Mr. R. J. Verney (one of the vice-presidents) regretting his inability to attend the meeting, and asking that he might not be elected to any office.

Mr. Simpson proposed, and Mr. Butters seconded, that Mr. Goodall be the president for the ensuing year; and there being no other nomination Mr. Goodall was unanimously elected.

Mr. Butters, nominated by the President, and seconded by Mr. Simpson; Mr. Rogers, nominated by Mr. Butters, seconded by the President; Mr. T. W. Lepper, nominated by Mr. Simpson, seconded by the Hon. Sec.; and Mr. Walker (the retiring president), nominated by Mr. Rogers, seconded by Mr. Simpson, were unanimously chosen as the four vice-presidents for the year.

Mr. Lepper, in a few complimentary remarks, proposed the re-election of Mr. J. P. S. Walker as treasurer.

Mr. Wilson seconded with pleasure. They could not have a better man for the office, and having got him they would keep him whether he would or no.—(Laughter.)

Mr. Butters and Mr. Rogers very cordially supported the nomination, and the question having been put to the meeting by the Hon. Secretary. Mr. Walker was re-elected by acclamation.

The President said he was very much obliged to them for their renewed expression of confidence in him. It had always afforded him pleasure to do what he could for the Society. As they knew he had resigned three times, and had been prevailed on to continue in the office. (Hear, hear.)

The Hon. Secretary: You must now leave off resigning. (Laughter and "hear.")

Mr. Wilson moved the re-election of Mr. J. Sutcliffe Hurndall as their Hon. Secretary. He was a most energetic and courteous man, and one who carried out his duties well, and they were delighted to have so zealous and efficient an officer. (Hear, hear.)

The President had very great pleasure in seconding the nomination of Mr. Hurndall. The Society could not have a better secretary. (Hear, hear.)

The vote was passed with acclamation.

Mr. Hurndall said he was very much obliged to them for that renewal of their confidence. He did not want to make any frivolous excuses, but he had in all seriousness thought it would be in the interests of the Association if they appointed someone else. (No, no.) As they had elected him, however, he would endeavour to fulfil the duties to the best of his ability. He only hoped the

membership would increase, and that they would have better attendances, especially at the November meetings, so that the Society might be a greater success. (Applause.)

PLACE OF NEXT MEETING.

Upon the proposition of the President, seconded by Mr. Wheatley, the meeting unanimously fixed Reading as the place of next meeting.

NEW MEMBERS.

In the absence of Mr. E. J. Mellett through ill-health, the President nominated Mr. Lalor, of Highworth, and Mr. C. R. Neale, of Henley-on-Thames, for election as members.

Mr. WILSON seconded Mr. Lalor, and Mr. Butters seconded Mr. Neale; and both gentlemen were unanimously elected.

DENTAL INSTRUMENTS.

The HON. SECRETARY presented his report as to the use which had been made since last meeting of the dental instruments the property of the Association.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

The HON. SEC. read a letter from Mr. A. W. Hill, asking for information as to a grant from this Association towards the above Institute.

The matter having been discussed at some length, Mr. Wilson gave notice that at the next meeting he would propose that a sum of £25 be voted from the funds of the Association for the purpose.

APOLOGIES.

Apologies were announced from Sir H. Simpson, Profs. Williams, Penberthy, McCall, and Macqueen, and Messrs. Flanagan, Slocock, Tutt, Verney, Irving, J. H. Wilson, and T. W. Lepper.

SPRAINS OF TENDONS AND LIGAMENTS.

An Address by WILLIAM HUNTING, F.R.C.V.S.

Mr. HUNTING said he was not going to cover the whole field comprised in the title, but simply to draw their attention to a not altogether novel, but yet not the orthodox method of treatment of sprains of ligaments and tendons. This treatment was, instead of treating them by warm water, sedatives and rest, to do nearly the opposite—to treat them by dry pressure, hand rubbing, and exercise. That method was first suggested to him by the practice of the unorthodox bone-setters. He heard what they had to say, he saw a few of their results which were not unfavourable, but with natural scepticism he paid little attention to the matter until he saw more of it and until he became aware that it was not opposed to true surgical principles. In 1890 or 1891 Prof. John Chiene, of Edinburgh, delivered the inaugural address in surgery to the British Medical Association, and, to his astonishment, gave scientific reasons for believing that the treatment by massage or motion of swollen and inflamed parts, was good. In other words, not only did they find that method of treatment attended by good practical results, but those results were capable of being explained on physiological and pathological data. He (the speaker) made no claim for originality in bringing this before them. Professor Smith had lectured on the same subjects before, and Capt. Hayes had mentioned it quite recently; and he remembered reading a paper on a somewhat similar subject at Exeter in 1891, when Mr. Bloye told them how Capt. Hayes had mentioned that very same treatment to him some twelve months previously. Perhaps the simplest thing to do would be to give very shortly the history of two or three cases of his own, and then they would see exactly what was done. He quite understood that it was open to this retort, "suppose you had done nothing, would not the patients have got better quicker? or, supposing you had adopted rest, would not they have got well in half the time?" Such difficulties were met in every case. (Hear, hear.)

At the beginning of the present hunting season he saw a brown gelding, lame in the near hind fetlock, which was swollen to the extent of probably 1½in. diameter greater than in health, and rather more upon the inside than upon the out. There was no sign of direct injury and the horse was not one that hit himself. The joint was very painful; and the history was that the owner, a man who rode with considerable judgment, had put his son on that day, and the son, like many young men, was perhaps more daring than discreet. It pleased him to take a big brook, and the result was that when the horse landed on the other side he was very lame. That horse had been lame on the same fetlock from a sprain at the end of the last hunting season, but as a result of summering and rest had got all right. The treatment he adopted was this. He had the leg wrapped in cotton wool and bandaged with a linen bandage with as much pressure as could reasonably be put on. Orders were left that at night the linen bandage should be taken off and replaced by an ordinary flannel bandage; also that they were to send him out for walking exercise next morning, with no weight on his back, for about half an hour. When he came in, cold water was to be run on to the fetlock for about five minutes, and then the leg hand-rubbed till dry—the rubbing being in the direction of the hair. On the latter point he might say that he saw it stated the other day that the rubbing should be in the direction of the flow of blood in the veins. He thought if they did that they would not accelerate the flow much more. The valves in the lymphatics and the valves in the veins would make the blood flow rapidly however the pressure was applied, and rubbing a horse's leg the wrong way of the hair was by no means pleasant, either for the man or for the horse, especially if they had an inflamed skin. Therefore he held it was much better, in applying hand rubbing, to rub with the hair. (Hear, hear.) When they had got it dry the cotton wool and bandage were replaced, kept on all day, and taken off again at night. He adopted that plan for this reason—that sometimes a bandage might be put on too tight, and a man might notice it during the daytime. The advantage of flannel was that it was warm and easily stretched, the advantage of linen was that it stretched very little and pressure with it could be more readily applied and more exactly graduated. Walking exercise for half-an-hour was continued for three days, then allowed twice a day for three days, and then one hour walking exercise at one spell. At the end of a week the fetlock was very much reduced in size, and was not painful, but the horse was still lame. Another week, and the horse was perfectly sound, went to work, and had remained at work ever since.

Another case, of rather different lameness, was that of a pony, with, he would say, an inflammatory enlargement of some structure just under the knee. He purposely put it vaguely. His own diagnosis was that it was a sprain of the sub-carpal ligament—what they called sub-carpal lameness. He treated the cob in the same way, and he was kept at walking exercise, and the result was that in ten days he was sound, and is sound now.

A third case was a back tendon. This horse he unnerved, last year, and he got a message about two months since to bring the tools and undo it again, because it had united. He went down perhaps rather disgusted with the sequal of the unnerving but prepared to repeat it, but found the horse had sprained his back tendon, but there was no sensation in the foot. It was

a recent case. He saw it the day after it was done, it was heated and painful, and the horse was lame at a walk. The dry cotton wool and bandage were applied and continued, with walking exercise, gradually increased as in the other case, and that horse also, in about three weeks' time, resumed work without any sign of lameness. Perhaps he had better say at once that he carefully endeavoured to diagnose between a sprain and a blow with the hind foot; and he thought from the local indications he was right in saying it was a sprain and not a blow on the tendon.

Another case occurred in a polo pony. It was a different case, because it was an old one. This pony had had a sprained back tendon for some time, and went lame. He was treated for about a week with the dry cotton wool and bandage, and then, as it was near the end of the season and he would not be wanted, for that was substituted one of those firm adhesive bandages. In that case also the pony recovered perfectly in a few weeks, so far as soundness went. There was a thickening to begin with, and there was a thickening yet, but no more than there was anterior to the recent sprain for which he saw him. He was far from saying that those cases were sufficient to justify him in permanently adopting this treatment, and far from saying they would not have got better if he had fomented or blistered the limbs, or even "put salt on their tails"—(laughter)—but judging from other cases he did say that this treatment had been at least as effectual and rapid as other methods. He saw one objection to it only—and that was that the British public liked them to do a lot; and if the practitioner contented himself with cotton wool and a bandage he might not get as much credit as if he adopted more active proceedings. As a matter of tact, then, it was a question whether that treatment should be adopted or not. As a matter of practice, it seemed to him to be quite suitable and successful, and as a matter of science he believed it to be more scientific than the old treatment. In a sprain what had they? They had a stretching and tearing of tissue to a greater or less extent, flow of a little blood, probably between the torn ends, a good deal of exudation of fluid, and inflammation. The other treatment—rest and hot water—was what was adopted in the days when they thought inflammation was a process of heightened and accelerated activity. Now they knew, at any rate they thought they knew, he hoped it would not all be exploded in the next twenty years—(laughter)—that it was a depressed condition of everything; that they had lowered vitality in the part, defective circulation, impaired nerve action. The further apart that the torn portions of ligament or tendon were separated, the longer would it take to get the animal well. All the parts that were stretched or torn were positively kept apart by the exudation that took place between them; and that exudation, he submitted, was simply so much material that did harm and very little good. He was quite willing to allow that probably some exudation in an inflamed part was necessary for repair—not that it became solidified and converted into tissues, but that it was required by special cells to use as pabulum to manufacture the proper tissues. Now the more swelling the less rapid the repair. Get rid of the swelling, then, was one indication, and he believed they could prevent the increase of swelling in an early sprain by firm pressure, providing that that pressure was equalised and thoroughly distributed by the use of cotton wool under a bandage. He was sure that the exudation was cleared up more rapidly by the use of pressure than by anything, except exercise, that he had tried. The impaired nerve influence, he took it, was due nearly as much to the exudation in the part as to any other cause. No doubt the end of the nerves became damaged, the same as the ends of the fibres that were stretched or torn, but the damage was increased by the amount of fluid thrown out and retained in the part. Especially was this the case in tendons which were surrounded by sheaths. In the back tendons of the horse the very fact of their being enclosed in the sheath into which fluid was thrown constituted the chief gravity of the lesion. As to exercise, the horse was especially an animal to which exercise for any swelling about the legs was beneficial. Of course there were cases in which exercise would not be adopted. If they had a fractured bone there must be some period of rest, and if they had a fractured tendon there must be some rest; but providing one acted with judgment, and did not immediately start to exercise a horse with a ruptured tendon, then he said exercise was most beneficial. A horse did not lie down just when they wanted him to do so—in fact as soon as he got something wrong with his legs he generally objected to lie down and made matters worse by standing obstinately. Gravitation had a similar effect upon moving fluids as it had upon those which were not moving; and nothing facilitated the flow of blood in vessels placed perpendicularly more than movement. Provided, then, the exercise was not calculated to seriously displace the damaged ends of ligaments or tendons, exercise had a most beneficial effect in promoting circulation through the part, and restoring it to a sound condition. Concerning bandaging, he preferred a linen bandage because it was not so liable to stretch A flannel bandage "gave," and its pressure was not so great as they would wish it a little time after it was put on. An elastic bandage was the worst and most dangerous thing they could apply. With it they put on pressure which, if it were not most carefully done, would act like a tourniquet, and stop the circulation below. A gentleman only the previous day had said how objectionable that treatment was, because he had once tried it and it had caused sloughing of the skin around the fetlock. He (Mr. Hunting) replied, thinking of the saying of Sir Joshua Reynolds that he mixed his paints "with brains," that the way to put on a bandage to get proper pressure was to apply it with cotton wool—and brains. (Applause).

The PRESIDENT invited discussion.

Mr. LEPPER said he would like some more experience of the treatment before he gave an opinion.

Mr. WILSON understood that Mr. Hunting advocated the use of the cotton wool dry; and Mr. Hunting gave an affirmative reply.

Mr. BUTTERS said he had no experience of the treatment recommended by Mr. Hunting; but some years ago, at Newmarket, he had a conversation with Barry, the trainer, who strongly recommended the use of what he called "charged bandages"—a preparation of wax and pitch, or something of the kind, spread upon a cloth and applied to the limb in a warm state and stitched up. He said they prevented an animal having sore shins, and breaking down; but they must be applied to an animal whose limbs were cool, fine, and in a healthy condition, and that if applied to a horse whose limbs were sore, or who had any tendency to sprain or lameness, the effect was prejudicial instead of beneficial. His own experience was that where they got a sprained tendon there was nothing better than hot fomentations with bandages, rest at first, and, as the inflammation subsided, of course exercise. He thanked Mr. Hunting for calling their attention to that method of treatment, which was well worth a trial at all events.

Mr. ROGERS said he had no experience of the treatment described by Mr. Hunting, but he saw Captain Hayes treat an animal of his own in that way two years ago. It was an animal he used for jumping, and it appeared to have a slight strain of the back tendons. He treated it as Mr. Hunting had suggested, but the exercise was not more than an animal would take in a loose

box. He (Mr. Rogers) saw the progress of that case, and the animal was sound in about three weeks. Could Mr. Hunting tell them of any way in which they could judge with accuracy whether to order exercise or not? It was difficult sometimes to know the amount of ruptured fibre there might be in a tendon. He also wished to ask if in any of the four cases named the horse had taken physic. It was sometimes found that a swollen joint would present all the features of bad ligamental or tendon sprain, and yet a dose of physic and a few days' rest would put all right again. Then generally, in all four cases named there appeared to be rather a vagueness as to the actual structure involved. Provided they were all more or less severe strains the experience would almost revolutionise their treatment. He quite agreed with Mr. Hunting that bandaging would do no harm, but he had some doubt about the exercising, as it could not always be easy to hit off the amount of damage to the ends of the sinews

Mr. WHEATLEY said his practice had always been to put the parts into a state of rest by putting on a stable shoe, a thick-heeled shoe, or something of that sort. In some old-standing cases, where there was perhaps a lot of thickening of the fetlocks, especially of the hind legs in harness horses, he found that with a high heeled shoe they would work for years, and work sound eventually. He had four or five such cases now of sub carpal injuries, in which he put on high heeled shoes and worked them without any pressure, and they got perfectly sound. As to pressure, he took it they all knew that trainers put on charged cloths or bandaged very frequently to prevent horses straining, if the leg was suspicious; but he did not think they would find a trainer put on a charged bandage or cloth on a recent sprain. They did it with hundreds in the form of bandages, and he put one the other day on a horse that had broken down, and that broke down last year. He certainly should give it a trial. He had seen several cases of hurt fetlock get better simply by several applications of hot water. He remembered one which hopped very lame, the joint being very much inflamed. In about ten days time that mare was sound and out hunting, and hot water was all the treatment she had.

The PRESIDENT was sure they all felt very much indebted to Mr. Hunting, and he would like to thank him personally for his kindness in bringing that subject before them. He did so the more because Mr. Hunting had kindly undertaken to open the discussion, at his request, at very short notice, and he consented to do so very readily. With regard to sprains, his experience had been that they were very difficult and slow to treat, and that the present treatment was very unsatisfactory, and he for one would hail any mode of treatment that would be more satisfactory and quicker, and have a better result than the old treatment. It had often occurred to him that either the hot water or the cold water treatment seemed to increase the mischief rather than to decrease it; and he was certain it always tended to increase the swelling in the neighbourhood. There could be no doubt that pressure was the most absorptive treatment they could apply to swollen parts. But the cases Mr. Hunting had mentioned did not appear to him to be what he might call right down sprains. In the first case it must be doubted whether there was any sprains at all—he said there was a sort of general swelling of the fetlock. Of course they could not always tell very well when they had a swollen joint whether it was really a sprain, or the effect of concussion, or a twist, or something else that set up the inflammatory action. In the case of the pony with the sub-carpal lameness, he did not know whether it would be put down as a regular case of sprain, and the treatment there also might not have had much to do with the cure. With regard to sub-carpal lameness generally he would remark that he had found in cart horses generally one of the worst forms of sprain to deal with was a sprain—at least he took it to be a sprain—immediately below the knee, in connection with the suspensory ligament, he thought, where it got connected with the other ligaments immediately behind at the back of the knee. If Mr. Hunting's form of treatment would be more satisfactory he should very gladly adopt it. He did not quite see the utility of the cotton wool in the day time and no wool at night. With regard to the exercise, he thought it a very cruel sort of treatment, and to start a horse with a bad sprain walking seemed not only cruel, but also contrary to their ideas of treatment. He thought an animal must have a certain amount of time for rest whether there was rupture of the tendons or not. He asked Mr. Hunting to reply.

Mr. Hunting said, in answer to Mr. Wilson, that his reason for using the cotton wool dry was that the pressure was much more elastic than if the wool were used wet. He saw no advantage in wetting it, because he was not prepared to allow that either hot or cold water did much good in those cases. As to adhesive bandages, mentioned by Mr. Butters, everybody had seen the old "charge" used, and he thought from what he heard in the profession that there was really more or less of a return to that practice in the last ten or fifteen years. He did not know why it was given up, except that it could be made a nasty, dirty job, and people would not pay so much for putting on a charge as they would for firing. Besides, there was something apparently surgical and heroic about firing that every man liked to do it, especially if he could make his line straight. (Hear and laughter.) A gentleman once objected, they read, to dip himself in the Jordan because it was not difficult. The advantage of cotton wool an inch or an inch and a half thick was that it absolutely equalised the pressure throughout the whole bandage, and that was most valuable. Mr. Rogers asked how they were to be sure that there were torn structures? Well, he often wished he knew exactly where a horse was wrong, but he got as near as he could. It was perfectly wonderful, when they made a post-mortem, what a long way they had been out sometimes. He did not want to pin himself to a tissue that he was not absolutely certain of; but in the cases he had given he believed he had stated them correctly, and that the animals went through all the stages in accordance with his diagnosis. Their chairman had said he thought exercise under the circumstances very cruel. He was not prepared to say there was not some cruelty in it, if by cruelty they meant the infliction of pain; but if by cruelty they meant the unjustifiable infliction of pain, then he held there was no cruelty in it at all. Let them compare the effect of exercise and of rest in a few other cases. Let them take a case of laminitis for example. They had to have a whip behind the horse, and sometimes two, to get him out of the stable, and in five minutes he went better, and in ten minutes went nearly as sound as could be. Exercise there was certainly superior to rest; but if they were governed by the old idea that pain necessarily required rest they would never have got the exercise. Again, in many cases of navicular disease—or, if they liked, in those cases of foot lameness where the patient could tell them nothing and the doctor saw nothing, but in which the horse went better after he had moved a bit and went much worse after a rest, those cases which were like those credited to ulceration of the navicular bone, steady work would make the horse sound, and he would remain sound as long as they kept him going, but rest him 24 hours and it was all over with him. They must look over the symptoms of pain and exercise him. Then in the much more simple case of muscular soreness in a horse that had done a hard day's work, what happened? Rest him and he got worse; but exercise him

gently, and in half-an-hour he was "as fit as a fiddle." Then why should they not adopt that treatment for the swelling, pain and stiffness which resulted from a sprain? Only because of the injury which it might do to wounded tendons by stretching them again; but they must remember that it did not at all follow that they would have the injured parts stretched by motion. They took a horse out with a curb, and there were plenty of horses that sprang a curb in the middle of the hunting season and finished the season all right, although that curb was more or less tender all the time. As long as the horse did not make a mis-step, and thereby stretch the ligament, nearly all the weight of the animal, and all the impulse given to him, proceeded through the tendons and muscles and not through the ligaments. With the back tendon, of course, it was different. There every movement had some effect upon the ends of the injured structure, but there were not many cases in which the ends were so far separated that they had not a good bit of sound tendon to hold, and he did not think a great deal of stretching would occur then by ordinary gentle walking exercise. But all he advised was, use your judgment. Concerning sub-carpal lameness he still thought his pony had not only sub-carpal lameness, but lameness due to spraining of the sub carpal ligament. He had seen a number of such cases, and all the symptoms were present in this one. In sub-carpal lameness in cart horses they had contraction set in, and the heel was slowly raised from the ground. With a very old horse he would put a high heeled shoe on and work him; but if they wanted to get him permanently right he would say, do not put on a high heeled shoe, but try exercise. Might he ask a question on the subject of sub-carpal lamenesses? How did they occur? Mr. Malcolm, he thought, said most occurred in horses working two-wheeled traps, implying that the weight on the back had something to do with it. He (Mr. Hunting) had three together at Putney all of which worked in four-wheeled carts. About two months ago he was at Greenwich and met Mr. Wooff, who told him that out of 12 horses in a stable in less than two years he had had five with sprain of the sub-carpal ligaments, and they all worked four-wheel carts. Mr. Wooff showed him the floor of the stable, which was one of the most slippery he ever saw, and then he remembered that the Putney stable was also floored with slippery Dutch tiles. Mr. Wooff had a theory that a horse in getting up, if he slipped backward, might do no harm, but if he put his weight on the foot forward and it slipped on the heel, the sprain of the sub-carpal ligament was the result; and that was at any rate very plausible. (Applause.)

Mr. ROGERS proposed a hearty vote of thanks to Mr. Hunting for his extremely interesting address, which had led to such a good discussion.

The motion was seconded by Mr. Hurndall, and carried by acclamation.

A vote of thanks to the retiring President, moved by the Hon. Secretary, and seconded by Mr. Lepper, having been accorded with cordial acclamation, the meeting came to an end.

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*.

The undermentioned Veterinary-Lieutenants to be Veterinary-Captains. Dated 10th December, 1894. Geo. C. O. Fowler, John A. Meredith, F.R.C.V.S.

Yeomanry Cavalry, Royal Wiltshire (P.W.O. Royal Regiment)—Veterinary-Lieutenant F. P. Bennett resigns his commission. Dated 12 December, 1894.

Veterinary-Major J. W. Evans has been transferred from Weedon to Aldershot. Veterinary-Lieutenant W. F. Shore from Aldershot to Newbridge.

Veterinary-Lieutenant F. Eassie embarked for India on 23rd ult., to complete tour of service.

Veterinary-Lieutenant H. A. Sullivan, has been granted an extension of four months sick leave of absence.

EXTRACTS AND NOTES.

PREVENTION OF SMALL-POX.

Delivered before the Medical Society of King's College, London, Oct. 26th, 1894.

By E. M. CROOKSHANK, M.B., London.

ORIGIN AND PROGRESS OF SMALL-POX.

Small-pox is undoubtedly a disease foreign to this country. It was imported from the East, probably from Egypt. Herodotus, who visited Egypt, leads us to infer that epidemics were unknown there during the reign of the Pharohs; but Egypt undoubtedly became a hotbed of pestilence during the Mahomedan occupation. Prosper Alpinus imagined that both the plague and small-pox were concocted by the putrid waters of the Nile, but he would probably have been more correct if he had suggested that they arose from the insanitary condition of the Arab conquerors and their filthy camp followers, who did their best to destroy all that remained of that magnificent civilisation which had existed in the days of the ancient Egyptians. We do not know the exact period at which small-pox was first imported into England, and the records of this disease are very meagre until the sixteenth century. In 1593 Simon Kellwaye appended to his work on the Plague a short treatise on Small-pox. "Oftentimes," he wrote, "those that are infected with the plague are in the end of the disease sometimes trouble with the small pocks or measels, as also by good observation it hath been seen that they are fore-runners or warnings of the plague to come."

SEVENTEENTH CENTURY: PERIOD OF IGNORANCE AND APATHY.

Small-pox steadily increased in this century until it came to be regarded as a formidable scourge; and yet no advantage was taken of all the experience which had been gained in dealing with the plague. No public measures were adopted to cope with the disease, and the people came to regard the new pestilence as a visitation from God which was unavoidable. Yet this was the century in which the great Sydenham lived. Sydenham was unquestionably a great physician, though it was not until after his death that his services to medicine were fully appreciated. His observations clinically were of the greatest value, and he revolutionised the treatment of small-pox, but his views upon the causation of epidemics were in the next century severely criticised by Dr. Haygarth. "The first introduction and continuance of the small-pox," wrote Haygarth, "were to be attributed to an ignorant and barbarous age, but the next cause of perpetuating the calamity was probably to be ascribed to the hypothesis of a physician distinguished in the highest degree for his knowledge and sagacity." Haygarth asserted that "Sydenham's hypothesis was accepted with universal assent by physicians for above a century, not only in this but in every other country illuminated by the light of science." According to Sydenham, the

pestilential, variolous, morbillous, and other contagions were attributable to a peculiar constitution of the air, and Haygarth maintained that "while such an opinion prevailed not the wildest visionary could ever entertain the hope of retarding the progress of small-pox except by prayers and by recourse to the merciful interposition of Providence." "It is astonishing," he adds, "what implicit confidence this pernicious doctrine has obtained, though positively contradicted and disproved by facts which lie open to every observer."

EIGHTEENTH CENTURY: PERIOD OF VARIOLATION.

The eighteenth century brings us to the adoption by the profession and by the public of an entirely different method of preventing diseases. I have not time to discuss the practice and results of the system of small-pox inoculation, and I have dealt with that subject elsewhere. I only wish to remind you that the method of *protective inoculation* was derived from the East, where it had been in use from time immemorial. An attack of the disease was artificially induced to protect against the danger of infection in the natural way. The operation was performed in different ways in different countries, but the method which was ultimately most generally adopted was to take lymph from a mild case of small-pox and insert it in the arm with a needle or a lancet in two or three places, though one successful puncture was as efficacious as half a dozen. Lady Mary Wortley Montagu, wife of the Ambassador at Constantinople, brought this practice to notice in 1717, and Mr. Maitland, a surgeon, inoculated her infant in England in 1721. Then the practice was taken up by the profession, and a great controversey arose between inoculators and anti-inoculators, in which the clergy took a prominent part; but the method gradually found favour, the people were willing to be inoculated, it was a most lucrative business, and, all opposition being swept away, it became established as the orthodox method of the profession for preventing small-pox. It was introduced in London in 1721, very generally practised after 1740, and prohibited by Act of Parliament in 1840. The penalty for infringing the Act is one month's imprisonment. Small-pox inoculation, or variolation, protected the individual when genuine small-pox was produced but endangered the community. Persons inoculated became centres of infection and conveyed the disease to others. Haygarth, although in favour of inoculation, strongly condemned its use without precautions to prevent the spread of the disease. "The most serious and solid objection," he wrote, "that has been advanced against inoculation is deduced from a comparison of the bills of mortality for a series of years in various places. They show that a larger proportion of inhabitants has died of the small-pox in towns where it is practised than in the same before it was known, or in others where it is prohibited." Even Dr. Dimsdale, an ardent inoculator, admitted that more lives were lost in London than before inoculation commenced, the community at large sustained a greater loss, and the practice was more detrimental than beneficial to society: and he added: "The disease by general inoculation throughout London spreads by visitors, strangers, servants, washerwomen, doctors, and inoculators, by means of hackney coaches in which the sick are sent out to take the air, or by sound persons approaching them in the streets. Haygarth's essential doctrine was "that mankind was not necessarily subject to the small-pox, and that it was always caught by infection from a patient or the poisonous matter" and might be avoided by observing his "Rules of Prevention." These rules comprised a regular system of notification and isolation. Inspectors were to be provided to report cases of small-pox, and people were to be rewarded for carrying out the instructions.

In 1793 Haygarth made considerable additions to his rules and urged that legislation should follow to make them compulsory. Haygarth's teachings had a profound influence upon both the profession and the educated public, but his system of compulsory notification was never carried out, for no legislation followed to enforce his recommendations. This is a matter deeply to be regretted, for towards the end of the eighteenth century small-pox was declining in London; general sanitation was making rapid advances; small-pox inoculation, which had created fresh centres of infection, was falling into disfavour; small-pox hospitals were built, which served to limit centres of infection; and the profession and the public were influenced by the teaching of Haygarth with regard to the various ways of avoiding the spread of the disease.

NINETEENTH CENTURY: VARIOLATION SUPERSEDED BY VACCINATION.—REVIVAL OF THE STAMPING-OUT SYSTEM.

I have referred to the widespread adoption of variolation and the general dissatisfaction which was felt with this method towards the latter part of the eighteenth century. It was at this juncture that a country practitioner, Edward Jenner, suggested in his pamphlet, published in 1798, that a new lymph, derived from the horse or the cow, should be substituted for variolous lymph. Jenner pronounced the new lymph to be protective for life, and it was undoubtedly incapable of spreading small pox. Many continued to prefer the old method of inoculation, but the admitted danger of small-pox lymph was such a strong argument in favour of the new lymph that vaccination was adopted. For a time the two methods were practised side by side. The advocates of vaccination then began to wage war upon the inoculators, for they realised that vaccination could not make headway until its rival had been driven out of the field. Many who had supported variolation in the old days now roundly abused the practice, until ultimately the method which had been for a century the orthodox treatment of the profession became a criminal offence.

It is true that small-pox, which began to decline before vaccination was introduced, continued to do so, and there was no epidemic for many years, but that this was due to vaccination, or that vaccination is capable of extirpating the disease or of controlling epidemic waves, is absolutely negatived by the epidemic in 1825 and the epidemics which followed in quick succession in 1838 and in 1840-41, 1844-45, 1848, and 1851-52. Vaccination was made compulsory in 1853, but epidemics followed in 1854, 1855, and 1856, in 1859-60, and in 1863, 1864, and 1865, culminating in the terrible epidemic in 1871-72, with more than 42,000 deaths. Further epidemics followed in 1877 and 1881. Among recent examples we may take the now historical epidemic in Sheffield. It was calculated that 98 per cent. of the population were vaccinated, and yet there were 6,000 cases of small-pox, at a cost to the local authorities of £27,000, while the pecuniary loss to the town was enormous. This is a terrible result, and occurred in a town reported to be one of the best vaccinated in the United Kingdom. Reverting for a moment to the history of these epidemics and the disappointing results of vaccination, we find in 1868 Sir James Simpson boldly stating that "isolation is the chief and leading measure required to stamp out small-pox."

Sir James Simpson continued as follows: "Our present sanitary laws are, in relation to the poorer classes, defective in their powers of stamping out infectious diseases merely, and mainly in as far as they do not enforce the isolation of the sick by due cautions after they are lodged in hospitals or in houses for their reception;" and in illustration of his views he

added: "Measures of quarantine and isolation have been tried elsewhere in the British dominions and found to answer. At the various ports of South Australia all entrance to those affected and capable of spreading small-pox has been so well guarded against that in only one instance, as mentioned to me by Dr. Grainger Stewart, has the disease spread landward into the city of Melbourne, in consequence of an individual getting into town through the misrepresentation of the captain and surgeon of the ship in which he arrived. He inflicted the disease upon nearly twenty of the residents. The authorities then interfered, placed all the affected in an inland quarantine station, and the disease spread no further. *Thus the malady was at once stamped out.*"

Small-pox has been imported into Leicester over and over again, especially by tramps,* and, crude though the measures adopted there may be, and however much we may wish for more complete and better organisation, no one can deny that they have been most effectual in suppressing the disease. The opponents of the Leicester system and the advocates of compulory revaccination will be found to explain these epidemics of small-pox by the assertion that it is not a question merely of vaccination, but of the number, size, and quality of the marks. I confess that I have no faith in the theory of marks, for vaccine lymph will produce on individuals of different ages and different constitutions and different nationalities no less than seventy varieties of marks. The discussion of these matters would, however, lead me beyond the limits of this address, and for the elucidation of these points and the vexed question of immunity in individuals as the result of vaccination I must refer you to the reports of the Royal Vaccination Commission. But while the vaccination controversy has been steadily growing in interest we have been controlling small-pox by means of sanitary legislation. I refer to the various Sanitary Acts such as the Public Health Acts for England and Wales, for Scotland, and for Ireland; the Epidemic and other Diseases Prevention Act; the Infectious Diseases Notification Act; the Infectious Diseases Prevention Act; and the Public Health (London) Act.

By the Public Health Act of 1875 England was divided into urban and rural sanitary districts, and powers were given to enforce regulations of the Local Government Board for guarding against the spreading of infectious diseases; to provide medical aid and accommodation for infected persons; to promote cleansing, ventilation, and disinfection; to provide hospitals; to provide for destruction or disinfection of infected bedding, clothing, and other articles; and to appoint medical officers of health. With regard to the Notification Act of 1890, the opposition to it, and the final triumph of its supporters, I do not think I can do better than quote *verbatim* from a special article which appeared in *The Times* of November 2nd, 1892: "Considering that Mr. Ritchie's measure has been in existence for less than three years, the extent to which it has been adopted by sanitary authorities all over the country is really astonishing. There were at first all sorts of objections to its principle and dismal forebodings as to its effect. . . . . Happily, all these objections have been found by experience to be without foundation.

Yet another blow has been dealt to small-pox by the Isolation Hospitals Act of 1893. Lord Thring's Act gives power to county councils to provide or cause to be provided an isolation hospital in any district within their county. Lastly, the Local Government Act of 1894 provides for the formation of district councils, and the urban sanitary districts are to be called urban and rural districts respectively. The powers, duties, and liabilities are principally those which were conferred by the Public Health Act of 1875. It is an extraordinary fact that in the text-books of medicine no reference is made to the influence of all these Sanitary Acts upon the existence of small pox and its prevention. The student is taught that small-pox has declined since the introduction of vaccination, and there the matter is left.

The Stamping-out of Animal Plagues.

I wish to further illustrate the stamping-out system by referring to the communicable diseases of live stock which may be compared with human small-pox, and to the preventive measures which have been effectual in getting rid of them. The cattle plague, which is known by the name of "cattle small-pox," was imported into England from abroad. When it was introduced into London dairymen and stockowners made no attempts to prevent the extension of the disease. The losses were terrible, and an Order in Council was passed in July, 1865, directing dairymen and others to notify outbreaks of any contagious or infectious disease among the animals under their charge. A veterinary department of the State was formed and inspectors were appointed in various parts of the country. A short Act was passed in February, 1866. A stamping-out system, consisting of compulsory notification and the slaughter of diseased animals, was soon brought to the notice of the public. There was violent opposition, but, nevertheless, after some delay the system was carried out. The number of cases of cattle plague had reached 18,000 weekly, and on the introduction of the stamping-out system the disease rapidly declined. Vaccination was recommended by members of the medical profession, but it was absolutely futile, and after a few attempts it was discountenanced. The disease was again imported into Great Britain in 1872. There were outbreaks in 1877, and ever since that year the disease has been kept out of the country.

There is another disease of stock which resembles small-pox in man; I refer to sheep-pox. It was imported into this country in 1847, 1862, and 1865; active measures of suppression were at once taken, and the diseased flocks were isolated and diseased animals killed and buried, and whenever these measures were adopted the disease did not spread. It was imported again in 1866, and again the disease was stamped out. Since 1866 we have been absolutely free from epidemics of this disease, although foreign sheep were landed suffering from sheep-pox in 1868, 1869, 1870, 1871, 1875, 1876, 1878, and 1880. Foot and mouth disease was another formidable animal pest in this country. It was imported in 1839. It has since been successfully dealt with by the stamping-out system, although in this case the system is much more difficult to apply. In the reports of the Board of Agriculture we learn that "perfect isolation and effectual disinfection have proved equal to the complete control of the spreading of the infection and the final extinction of the disease." These facts I have brought to the notice of the Royal Vaccination Commission, and I have laid considerable stress upon them. I maintain that prompt isolation in the case of human small-pox is as efficacious in stopping the spread of the disease as the use of the pole-axe in cattle plague. Thus, three great animal plagues, which may be compared with human small-pox, have not only been suppressed but driven out of this country by the stamping-out system. The distinguished veterinarian, Professor Brown, of the Veterinary Department of the Board of Agriculture, has been mainly responsible for carrying out this system, and not only does the extirmination of these plagues from this country form one of the brightest pages in

* The cases of small-pox in Leicester in 1892-93 were started by a vaccinated tramp, and there were eleven separate introductions of the disease into the borough by tramps, while seventeen tramps in Leicester contracted it.

the history of the veterinary profession, but those interested in the farming industry will acknowledge that it constitutes one of the triumphs of the sanitary legislation of the nineteenth century.

CONCLUDING REMARKS.

In conclusion, I will only remark that as the result of studying the epidemiology of small-pox and the preventive measures which have been in favour from time to time, and of studying also the methods of the Board of Agriculture, I have ventured to urge upon the Royal Vaccination Commission the necessity of relying upon a stamping-out system to exterminate small-pox from this country. If the Local Government Board would only exercise as much energy in dealing with small-pox as with Asiatic cholera I believe we should get rid of the disease in six months. But it almost appears as if the medical department of that Board dreaded to take the initiative in carrying out any measures which might be interpreted as an admission that the vaccination policy of the department had been a failure. We must therefore look to those outside the Board to introduce the necessary reforms, and I earnestly hope that such will be the final result of the prolonged labours of the Royal Vaccination Commission. I can see no reason why the Government of this county should not enter into friendly negotiation with the Governments of other countries, so that there might be concerted action to prevent a preventable disease like small-pox. Much good might result from the formation of a permanent International Board of Health. If civilisation is not yet sufficiently advanced to admit of a system of international notification, our consular authorities should be instructed to give immediate notification of the existence of small-pox in other countries, and every measure should be enforced to diminish the possibilities of importation. The duties of a Central Health Office, presided over by a Minister of Health, should include the collection of information as to the existence of small-pox in other countries, and details should be published in the annual reports of the department. Regulations, for example, for dealing with the importation of rags from small-pox stricken places should be enforced, as in the case of cholera; and if, in spite of these precautions, isolated cases occurred in this country they should be promptly dealt with.

Notification should be enforced uniformly all over the country, and in these days of special messengers, telegraphs, and telephones, and morning and evening papers there is not the slightest reason why the authorities and the public should not immediately receive information of the existence of small-pox.

Isolation should be uniformly enforced all over the country, and it should be compulsory upon county councils and local sanitary authorities to provide isolation hospitals. It would, therefore, be a great advantage if Lord Thring's Act were speedily amended to this effect. One of the terms of reference of the Royal Vaccination Commission is to inquire "what means other than vaccination can be used for diminishing the prevalence of small-pox, and how such means could be relied upon in place of vaccination." This must not be interpreted as indicating that protective inoculation as a voluntary measure might or should be abolished. There are many who have confidence in vaccination

Vaccination is not a thing to be lightly undertaken in any case, and the condition under which the infants of the poor are vaccinated are very unfavourable. Where there are no nurseries, no home comforts, and where often the mothers are unable to attend to their children, we must not be surprised at opposition, if even the result be only a sore arm.* The communication of syphilis has been minimised and even denied by the profession in the past; but Mr. Hutchinson's cases and the candid reports of Continental vaccinators have settled the question. And not only may erysipelas, skin eruptions and severe ulceration, and complications causing prolonged ill-health occur, but even death may ensue. Compulsory vaccination blocks the way to the development of a complete stamping-out system; but I venture to think that it will soon be abolished and compulsory notification and isolation substituted, and that additional precautions will be taken to prevent the importation and spread of the disease. If it be dangerous to prophesy, we may at least hope that the chronicler of the twentieth century will be able to say that the sanitary progress of the nineteenth century and the uniform adoption of the stamping-out system culminated in the complete extinction of small-pox in Great Britain.

* It is reported that in one district alone in East London no less than 9000 summonses await hearing, and that the local authorities of Mile-end Old Town are now sending a petition to the Queen.

ACTINOMYCOSIS IN THE HUMAN SUBJECT.

An ordinary meeting of the Royal Medical and Chirurgical Society was held on Nov. 13th, Mr. Hutchinson, President, being in the chair.

Dr. J. J. Pringle read a paper on a case of actinomycosis extensively involving the skin. The subject was treated from a purely clinical standpoint, as the patient was still living, and was demonstrated to the society. He was a boy aged 13 years, whose family had lived until recently over a stable yard, and was admitted in February, 1894, to the Middlesex Hospital suffering from an apparently simple attack of serous pleurisy, from which he recovered in a month, with marked retraction of the affected (right) side. Shortly afterwards he was readmitted to the surgical ward on account of abscesses over the front of the chest and the right hip, which were considered as tuberculous, and scraped. He returned to the hospital on September 28th with a very extensive tract of disease implicating the skin chiefly of the back. The characters of the skin disease were described in detail, the most prominent feature being the presence of large saccomatous-looking growths, ulcerating at various points, situated upon hard, brawny, and deeply undermined skin. From the ulcerative points pus exuded, mixed with characteristic yellow granules, readily recognised microscopically as composed of actinomyces. There was strong presumptive evidence of invasion of the right lung, pleura, liver, kidney, and retro-peritoneal and pre-vertebral tissues. Treatment by iodide of potassium and thyroid tabloids appeared to be attended by benefit, and reasons for the treatment adopted were given. The case was regarded as an example of actinomycotic invasion through the respiratory tract. Special attention was directed to the characters of the skin affection, which differed materially from those of cases described, and points of differentiation from other skin affections which most closely resemble it were laid down. The paper was accompanied by a life-sized water-colour drawing and microscopic preparations of the fungus.

Dr. Stephen Mackenzie agreed that the case was one of extreme rarity. He had recently seen a child aged eleven years who presented on the face and neck a lesion of the skin with which he was unfamiliar. It evidently belonged to the class of granulomata and presented indurations erythematous in character, on which were globular masses varying in size from a pea to a small cherry, semi-translucent, soft, spongy, and exhibiting yellow points. The child had been under the care of Mr. Eve in September, 1893, with a sinus on the right side of the cheek; the wound was probed and found to lead to

bare bone on the inner side of the lower jaw. The sinus was scraped and irrigated, and soon healed. In June, 1894, he returned with granulations projecting from the sinus, which had re-opened; actinomycosis was then suggested and the ray fungus looked for without success. It was again scraped and again got well. The lesions at the present time were much like those in the case shown, except that there were no gummy discharge and no escape of yellow particles. The patient's father was a stableman and the child had lived and played in the stable until two years before admission.

Dr. Douglas Powell said that the disease should not, in his opinion, be classified as a skin disease, for it had cropped up here and there, having extended from deeper parts. The previous attack of pleurisy was interesting in the complete way in which it had cleared up, and in this respect it resembled some cases of tuberculous pleurisy. He suggested that the albuminuria might possibly be due to albuminoid change, and in this connexion the fact that the liver was enlarged was noteworthy. The improvement noted in the child was probably due to causes other than the use of thyroid tabloids, and he asked Dr. Pringle whether any other physiological effects without vomiting, such as hurried pulse, had been noticed from using the thyroid extract. Almost all cases had been traced to contamination by straw, though it was not known exactly how the infection arose.

Mr. Godlee had recently seen in conjunction with Dr. Fairweather a case of actinomycotic disease about the cæcum, which pointed in many places. In the case he had shown in conjunction with Dr. Powell the boy was a cow-keeper, and the appearances of the growth in the skin where it approached the surface, forming bulging masses, were like those in the case shown; in Dr. Fairweather's case the openings of the sinuses were all quite flat, and the patient improved under iodide of potassium. It should be remembered that in scraping these sinuses the hæmorrhage was liable to be excessive.

Mr. Malcolm Morris said that the graphic report of the case was useful for differential diagnosis. He asked whether there was any evidence of direct inoculation of the skin from the trickling of gummy fluid over it, and also if Dr. Pringle had any explanation to offer as to how the lesions about the hip and chest arose.

Dr. Fairweather said he had commenced treatment by giving five grains of iodide of potassium three times daily without any result. The dose was then advanced to twenty grains with very marked improvement. There were thinning of the discharge, diminution of the granulation, and disappearance of the clubbed elements; the abscesses had nearly closed up and the patient had gained in weight during the last six weeks. When the remedy had to be given up on account of gastric disturbance the granules reappeared in large quantities. The patient was not connected in any way with horses or cattle.

Mr. Godlee added that this patient was known to be fond of chewing corn.

Dr. Kingston Fowler said that when the case was under his care for pleurisy there was no indication of actinomycosis. The peculiar appearances of the granulations as they affected the skin were quite typical of the disease.

Dr. Barlow said that a case was under his care five years ago which he did not at the time recognise. Later the necropsy was performed by Dr. Delépine, who found very extensive disease in all the cavities of the body and who had published the account in the Pathological Society's Transactions for 1889. In that case the tumours diminished considerably under iodide of potassium.

Dr. Frederick Taylor had published a case, in the Guy's Hospital Reports, of actinomycosis of the liver which had commenced to affect the skin. There were deposits in the lungs, and he suggested in his paper that they were carried there by the bloodvessels. He had been unable to find out how the lesion had occurred. He referred to the satisfactory result which followed in Dr. Ransome's (jun.) case, in which, amongst other drugs, iodide of potassium was freely given.

Dr. Samuel West mentioned a case of abscess of the abdominal wall which discharged itself spontaneously, and in which there had been no infection of the skin. Post-mortem masses of growth were found spreading from the left side and involving the skin. It was regarded at first as specific, and iodide of potassium was freely given, but with no effect.

Dr. Pringle, in reply, reminded Dr. Mackenzie that it was often difficult to find the organisms of actinomycosis. It was an important fact that the cases of actinomycosis with pleurisy tended to recover, but with an undue amount of skrinkage of the affected side. He had come to the conclusion that the boy was not suffering from albuminoid disease. The collapse and vomiting disappeared when the thyroid treatment was stopped. Surgical interference in the case he had shown was contra-indicated. There was no evidence of direct inoculation of the skin, &c., and he was unable to explain the *rationale* of the metastatic deposits.—*The Lancet.*

THE USE OF DRUGS.

Last month Dr. Samuel Wilks, F.R.S., delivered an address before the Oxford Medical Society on "Stray Thoughts on Some Medical Subjects." The following extract on drugs and their uses will be interesting to veterinarians.

The great and prime object of our calling is the restoration to health of those who have departed from the standard. If by the alterations in their surroundings this is not to be accomplished we may find assistance in drugs. As regards their use I have often been called a sceptic. I scarcely know in what sense the word is used. I cannot overlook the fact of the great value of digitalis in heart disease, of arsenic in anæmia, and of several other drugs in special complaints. I have said no more than this, that to sit down in one's chair daily and write on a piece of paper the name of some drug for every ailment without exception which comes under our observation is in the present state of medicine an absurdity, and is simply a pandering to human weakness. I do not say that drugs are not useful in a moral sense. I am merely contending that the method is not scientific, as we usually apply this term. I know of no more successful practitioner than the late Sir William Gull, and his treatment was rational, but he did not credit any particular drug with the properties ascribed to it by the patient. His prescriptions very often consisted of nothing but coloured water. I was reading a day or two ago in a popular journal of the success of a so-called "sixpenny doctor" at a cheap dispensary, where he saw on an average seventy patients during one evening. His favourite and almost universal medicine was a mixture composed of sulphate of magnesia, burnt sugar, and infusion of quassia. The merits of this were that it was cheap and produced an appreciable effect, for he went on to say, "You must always give medicines which produce appreciable effects; then, also, the mixture must taste like medicine, and if it have a bad smell the patient will be better satisfied." I do not think this successful method of treatment has yet been taught in the medical schools.

I am anxiously looking forward to the time when we shall be able to boast of scientific therapeutics, and I accord all praise to the few men who are working at the

subject, like Brunton, Leech, Fraser, and others, who have already shown how groups of chemical agents may by their constitution have some analogous action on certain tissues of the body, and have, moreover, proved by direct scientific processes the true operation of medicines. What I do object to is the attempt to treat cases of disease on principle when we possess no principles; we do not know sufficiently the action of drugs to do this, and we know less of the meaning or significance of symptoms which we treat. In these circumstances I maintain it is wiser to follow the empirical method and act on experience only. Take any disease you like and observe the consequences of acting on the quasi-scientific method. I take phthisis because it was when consulted in a case of this disease that I was charged with scepticism; and yet the doctor who did this entirely changed his method when he heard of the tubercle bacillus. Surely the sceptical mind is better than the one which is acting on wrong principles. If scientific therapeutics be dependent upon a better knowledge of the meaning of symptoms, surely the former must follow the latter; and therefore it is not wise to say, as is often done, that every branch of medicine is advancing except therapeutics. It seems to me that it goes on too fast, constantly changing with every fresh view of disease. If, to recur to phthisis again, the scientific method is by the use of antiseptics, how could this possibly have been suggested before the discovery of the tubercle bacillus? With the man who maintains that tubercle is nothing but carbonaceous matter inhalation of oxygen and various methods of expanding the lungs are for the moment the true scientific method of treatment. With the physician who maintains that tubercle is unassimilated albuminous matter, owing to a deficiency of pancreatic juice, the latter must be administered as the remedy. If tubercle be a parasite, then sulphuretted hydrogen and creasote are medicines warranted to cure it. It seems to me so obvious that, with an imperfect pathological knowledge and a considerable ignorance of the action of drugs, therapeutics cannot in its largest measure possibly be scientific. The cases where the *rationale* can be given for the use of any medicine can be numbered on the fingers. I cannot but repeat what I have said before, that in our present state of knowledge I hope we shall not have many more drugs, and am also thankful that many of those which we have, do not possess the attributes commonly assigned to them.

I am anticipating the day when there will be a system of true scientific therapeutics, but until that arrives I think we should rather be guided by our experience in the use of drugs than by any principles of our own concoction. One of the worst practitioners I have ever known was a man who had a reason for the employment of every medicine he prescribed. One example will suffice—viz., maltreatment of a case of whooping-cough by giving nothing but nux vomica, as he understood it was a nervous complaint. At present every man is a free lance, and treats his case according to his fancy. Should it be a case attended by fever, one medical man gives antipyrin to reduce the fever, and another digitalis to reduce the pulse, and so on. I think it is as well to remember that medicine stands on a different footing from most other sciences in this respect. These have grown step by step from the smallest beginnings until the present structure has been attained, while the development of scientific medicine has been by an opposite method—by a process of trimming, discarding, and purifying. It began as a superstition, covered and surmounted by fancies and crude theories. By getting rid of these advance has been made, but the fact is not yet sufficiently realised that many of the old fancies still remain in the profession. There was a time, as our old herbals show, when nearly every plant in the kingdom was supposed to have some medicinal value; the majority of these are now discarded, but still many remain. A very remarkable instance of the fanciful action of a vegetable on the system is the supposed diuretic effect of asparagus. I had long known it had no action of the kind ascribed to it, but seeing the old error perpetuated in modern books I made further inquiries on the subject, and the answers I received were without a single exception to the effect that asparagus had an inhibitory action on the kidney, so that it might be called an anti-diuretic. It is interesting to note how the delusion or mistake occurred. This is supplied by the fact that many of my correspondents could not refrain from mentioning the well-known odour which the secretion possesses after this vegetable has been eaten, which is said to be due to the production of succinic acid. Herein lies the explanation of its fallacious action. The French peasantry seem long ago to have discovered the truth, for finding the result not as expected they took to drinking the water in which the asparagus was boiled. I am told that this is the usual custom, and so the desired effect is obtained, for I suppose most medical men will agree that the best known diuretic is water.

It would be amusing as well as instructive to call to mind some other strange fancies which influence the public, and even some members of our profession—for example, that dark things are stronger than light ones, whiteness corresponding to weakness, softness, or tenderness, so that a patient after a long illness, should commence with the white meats on the assumption that veal or turkey are more digestible than mutton or game, or should fish be suggested he must begin with a little whiting. I have known a medical man insist strongly on his patients drinking "brown" sherry after an attack of influenza, laying great stress on the colour as indicating a better or robuster restorative. If he had inquired he might have discovered that the colour was due to burnt sugar. I sometimes hear also of the prohibition of "stone" fruits, as if cherries and greengages were more indigestible than strawberries or ripe pears, but it was the word "stone" which evidently petrified the brain. There are plenty of other fallacies not so glaringly obvious where we have allowed our fancies to guide us. I have said that one great method of advance in medicine is the getting rid of old theories, fancies, and superstitions in the same way as has been said by a great writer that in legislation more good has been done during the last century by abrogating bad laws than by the enactment of new ones. I am quite open to the evil effects which an idea of this kind may carry with it, and that in the attempt to get rid of all that is false we are left at last with bare facts without any halo of human action around them. In our profession we are then apt to rest satisfied, sit down, and look at the natural course of events without interference; we look on and call ourselves expectants. Those who knock down are not usually the same as build up—the iconoclast is not the constructor; and therefore I should like to say for myself that, although I still see much to be got rid of, I have no doubt in the efficacy of medicine and other means to assist us in restoring to health our ailing fellow creatures, and believe that we shall make still further discoveries in the efficacy of drugs. I regard with the greatest honour the few, very few, men who in our country are studying therapeutics in the true scientific spirit. My strongest hope of medicine in the future lies in this direction, for it is evident that if the right administration of remedies implies a knowledge which study alone can give, and also a knowledge of the meaning of symptoms, the educated man alone can treat disease and the ignorant one must fall into obscurity, quackery will die a natural death, and the millennium of medicine will be at hand.—*The Lancet.*

Personal.

A Complimentary Dinner.

Mr. Harry Thompson, M.R.C.V.S., Aspatria, has recently delivered, under the auspices of the Westmorland County Council, a course of popular lectures on veterinary subjects at Askham. The concluding lecture of the course was delivered on the evening of Friday last; and at the close Mr. Thompson was entertained by the farmers of the district to a complimentary supper.

Appointments.

Dr. Longden, lecturer on Anatomy at the New Veterinary College, Edingburgh, has, on account of ill health, temporarily resigned his appointment, and has taken a sea voyage at the instance of his medical advisers.

Mr. J. M'Lachlan Young, M.R.C.V.S., Dundee, has again been engaged by the Technical Instruction Committee of Aberdeenshire to deliver lectures on veterinary subjects in fifteen centres of the county. Six lectures are to be given at each centre.

OBITUARY.

David Mackay, Tain, Ross-shire,
Graduated at Edinburgh, May, 1860.

Mr. Mackay died rather suddenly. He left home on Thursday, the 30th ult., to attend professional calls at Scourie, in Sutherlandshire, where he was engaged until Saturday. Not feeling quite fit for the return journey he resolved to rest in the Stafford Arms Hotel, but gradually became weaker, and expired on Tuesday evening, 4th December.

With a professional connection in the northern counties extending over a period of thirty years, the associations which he formed were of the most pleasant description. Always punctual and attentive to his professional duties, he had secured the confidence of a large circle of clients, who always appreciated his services, and accepted his advice and instructions. His services were sought throughout Ross and Sutherland, and his obliging and sympathising disposition stood him in good stead when discharging his duties in critical cases.

Always ready to assist in every charitable cause, his right hand never knew what his left did. Unostentatious in his manner, cheerful in his social intercourse, his friendship was sincere and lasting. Kind-hearted to a fault, he would never see a brother in distress. In his demise, Tain has lost one of its most warm hearted, genuine, and loyal townsmen, as well as one of its most genuinely Christian-spirited citizens. His memory will long be cherished by the wide constituency throughout which he was so well and favourably known. His remains were interred in the burying ground of Kincardine. Universal sympathy is expressed for his bereaved relatives. Deceased was a brother of Mr. Donald Mackay, The Grove, Parkhill.—*The Ross-shire Journal.*

CORRESPONDENCE.

"KNUCKLING OVER" OF THE FETLOCKS.

Sir,

I am much impressed by the above article from the pen of Mr. E. L. Dixon, M.R.C.V.S., of Margate. The importance of the subject must surely command the attention it so much deserves.

I consider the condition one of special professional interest, and a discussion through the columns of your valuable journal may throw additional light on the subject, and thereby assist us in giving more positive evidence when called upon to do so.

"Knuckling over" is a prevailing condition, and we find it in nearly every working stud in London. To my mind there can be little doubt that it is a partial dislocation of the fetlock joints, since we know the cause to be weakness of the tendons which so actively play over the articulation. The weakness is developed from frequent attacks of ligamentous strain. The tendons and their sheaths become inflamed, lameness follows, and the animal to save pain eases the tendons by knuckling over. The attacks become general, and so we have the animal "up" on his joints, showing signs of wear and partial dislocation is the result.

The question at issue is—does "knuckling over" constitute cruelty? I say no, unless the horse suffers pain. In that case the magistrate would be justified in convicting.

Wm. Kirk, M.R.C.V.S.

London, W.

ANTHRAX IN CALVES.

Sir,

In reply to your footnote of the above case recorded in last week's issue of *The Veterinary Record*, I take it that you allude to the brewers' grains. I should feel extremely obliged if you would kindly suggest the way by which they were a probable cause of the outbreak. The grains were obtained from a first-class brewery in this town. If in the first place the malt had been contaminated with the virus I should assume that the period of heat to which the grain had been subjected would have materially affected the organism; at the same time if the grains had been the offending food would it not have been probable that we should have heard of an outbreak amongst the imbibers of the product in this town or the surrounding country?—Thanking you in anticipation, yours sincerely,

J. W. Pritchard.

Brighton, Dec. 4th, 1894.

[Our note was suggested by a case which occurred some years ago where brewers' grains had been the medium of infection and where it appeared that the anthrax organism had not only lived but developed in the grains.—Ed.]

Sir,

By the tone of the letter of your anonymous correspondent to *The Veterinary Record* of this date criticising the report on the outbreak of *anthrax* which came under my notice, I should presume that the individual is just commencing to paddle in the waters of bacteriology. I certainly should not have condescended to reply if the communication had not been one reflecting on individual professional ability.

Considering the specimens were seen, and the nature of the disease confirmed by two other well-known qualified veterinary surgeons of this town, I consider it great presumption on the part of a student to say what was probably seen under the microscope.—Yours sincerely,

J. W. Pritchard.

Brighton, Dec. 8th.

Communications, Books, and Papers received:—Messrs. H. Smith, Jno. A. W. Dollar, J. W. Pritchard, B. Eggleton, J. P. S. Walker, H. D. Chorlton, W. T. Edwards.
The People's Journal (Perth), *American Veterinary Review.*

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

Communications for the Editor to be addressed 20 Fulham Road, S.W.